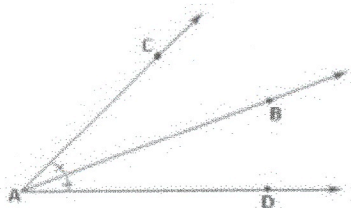


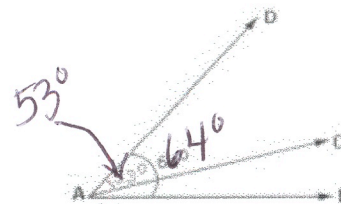
## Algebraic Problems in Geometry

### 1. Angle Bisector



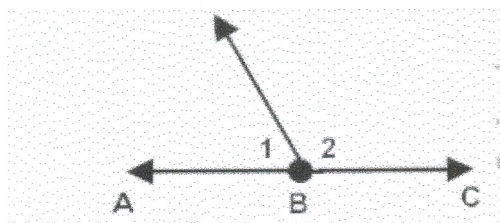
$$m\angle CAB = m\angle BAD$$

### 2. Angle Addition Postulate



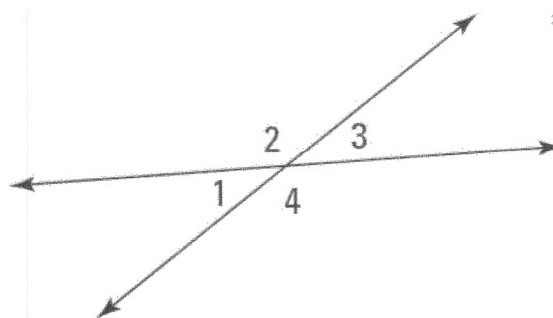
$$m\angle DAC + m\angle CAB = m\angle DAB$$

### 3. Linear Pair



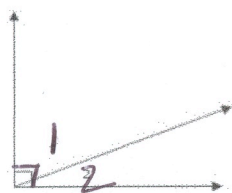
$$m\angle 1 + m\angle 2 = 180^\circ$$

### 4. Vertical Angles



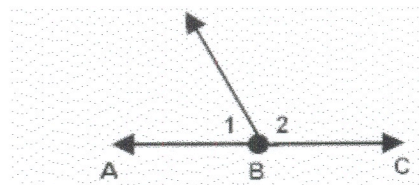
$$m\angle 2 = m\angle 4$$

### 5. Complementary Angles



$$m\angle 1 + m\angle 2 = 90^\circ$$

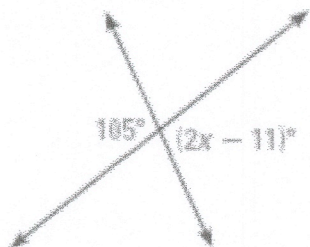
### 6. Supplementary Angles



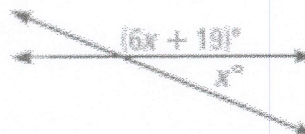
$$m\angle 1 + m\angle 2 = 180^\circ$$

**17 USING ALGEBRA** Find the value(s) of the variable(s).

28.



29.



**FINDING ANGLES**  $\angle A$  and  $\angle B$  are complementary. Find  $m\angle A$  and  $m\angle B$ .

45.  $m\angle A = 5x + 8$

$m\angle B = x + 4$

46.  $m\angle A = 3x - 7$

$m\angle B = 11x - 1$

**FINDING ANGLES**  $\angle A$  and  $\angle B$  are supplementary. Find  $m\angle A$  and  $m\angle B$ .

49.  $m\angle A = 3x$

$m\angle B = x + 8$

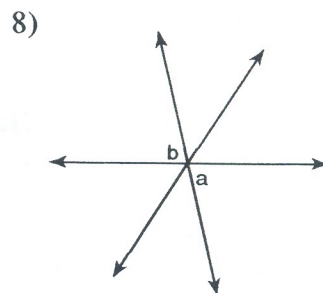
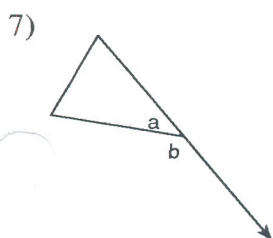
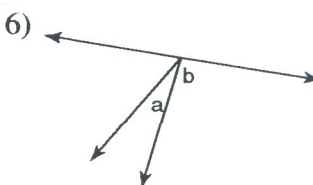
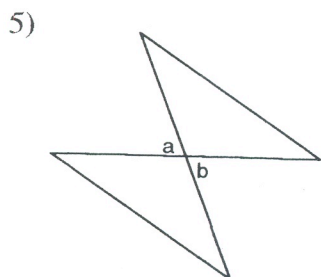
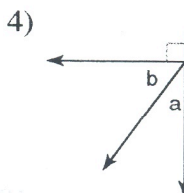
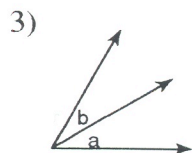
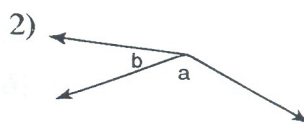
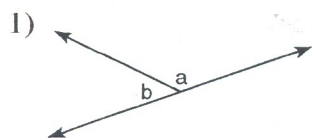
50.  $m\angle A = 6x - 1$

$m\angle B = 5x - 17$

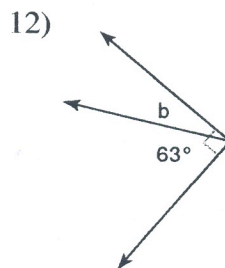
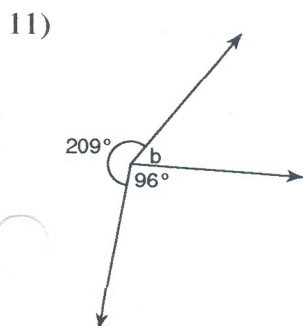
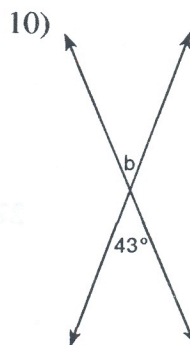
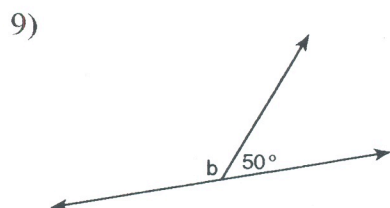
## Angle Pair Relationships

Date \_\_\_\_\_ Period \_\_\_\_\_

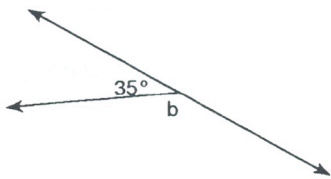
Name the relationship: complementary, linear pair, vertical, or adjacent.



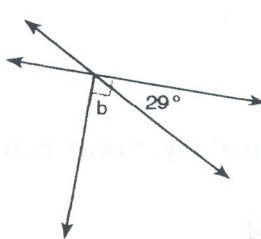
Find the measure of angle b.



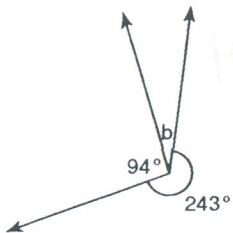
13)



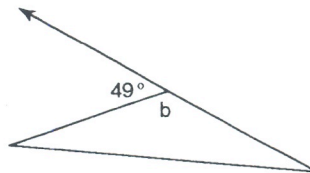
14)



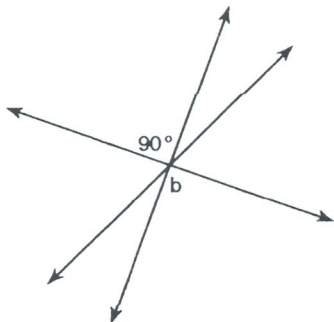
15)



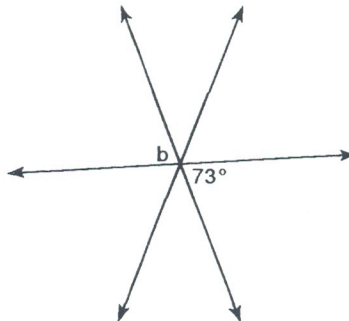
16)



17)

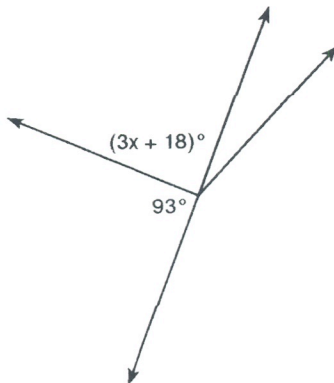


18)

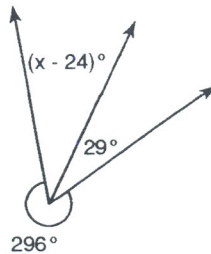


**Find the value of x.**

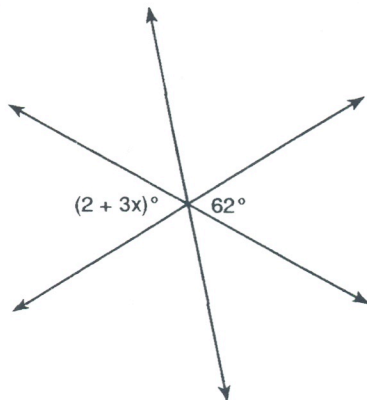
19)



20)



21)



22)

